

REMARKS

In the Office Action mailed November 7, 2003, claims 1-19 and 36-49 were rejected under 35 U.S.C. § 102(e), and claims 20-33, 34, 35, 50-61, and 63-65 were rejected under 35 U.S.C. § 103(a). Applicants are amending the specification to include the serial numbers of the priority applications. Applicants are amending claims 1, 2, 13, 20, 21, 23, 36, 37, 42, 45-48, 50-59, and 62, canceling claims 9-12, 14-16, 19, 22, 24-26, 29, 31-35, 49, 60, 61 and 63-66, and adding new claims 67-78. Applicants respectfully submit that no new matter is being added by these amendments and new claims.

INTERVIEW SUMMARY

On January 28, 2004, Applicants' representatives Wendi Schepler and Steve Hemminger held a telephone interview with Examiner Nguyen. The parties discussed claim 1 and U.S. Patent No. 6,141,325 to Gerstel, but no agreement was reached as to claim 1. Applicants thank the Examiner for carefully listening to the Applicants' comments regarding the reference and claim 1, and for his time.

ELECTION/RESTRICTIONS

In paragraph 2 of the Office Action, the Examiner made a restriction requirement, stating that claims 1-65 and claim 66 are drawn to distinct inventions. Applicants hereby affirm the election of claims 1-65 made in a telephone conversation on October 28, 2003 between the Examiner and Applicants' representative. Claim 66 has been canceled herein.

CLAIM REJECTIONS UNDER 35 U.S.C. § 102(e)

In section 7 of the Office Action, the Examiner rejected claims 1-19 and 36-49 under 35 U.S.C. § 102(e) as being anticipated by Gerstel et al. (U.S. Pat. No. 6,141,325) (“Gerstel”). Applicants respectfully traverse.

The invention defined by the pending claims addresses improving the performance of Internet communication:

There is therefore a need in the art for an approach to improving the performance of Internet communication, particularly communication between web clients and web servers, which does not require significant computer resources and which is compatible with existing standard protocols.

(Specification, pg. 6, lines 18-21).

In contrast, Gerstel discloses a technique for achieving network topology updates in networks containing sub-networks that have different operating protocols. Gerstel discloses sub-networks that are not compatible because of their topology, for example token ring networks and wide area networks, or because of their operating systems. (Gerstel, col. 1, lines 19-23; col. 3, lines 5-29). In Gerstel’s invention, each node in a network comprises a plurality of agents, written in migrating executable code (e.g., Java), which represent every other sub-network or domain in the network. (Gerstel, col. 3, lines 31-34). An originating node can calculate a path through the network locally, simply by querying its agents representing the sub-networks. (Gerstel, col. 3, lines 40-42). Gerstel discloses an example network 204 having sub-networks A, B, C, and D, which all require different operating protocols and have different topologies (e.g., B is a ring network and D is a WAN). (Gerstel, col. 4, lines 47-54).

The invention of Gerstel “involves shipment of agent code across the network.” (Gerstel, col. 8, line 37). This agent code is written in migrating executable code like Java so that nodes in the different subnets (which have different kinds of hardware) can install and use the agent code. (Gerstel, col. 3, lines 5-29). Gerstel merely discloses that the agent code is sent over the network (col. 8, lines 36-48), but does not teach or disclose how the “shipment of agent code” is accomplished. Gerstel does not discuss or concern itself with communication protocols, the subject of the current invention.

Regarding claim 1, the Examiner stated that Gerstel teaches “communicating an Internet message from the source to the node of the first type using a first protocol” by the disclosure of a node 103 in subnet A, a selected node 102 in subnet C, and that subnets A, B, C, and D all require different operating protocols. Claim 1 has been clarified to recite “communicating an Internet message from the source to the node of the first type using a first communication protocol.” For instance, in one exemplary embodiment of the invention, a client communicates a request for content to a C-node using a communication protocol that includes HTTP over TCP (Specification, pg. 47, lines 3-5). Gerstel does not disclose communicating an Internet message, and does not disclose communication protocols. The invention of Gerstel “involves shipment of agent code across the network” (col. 8, line 37), and does not disclose communicating an Internet message.

The sub-networks of Gerstel require different *operating* protocols and have different *topologies* (e.g., token ring, WAN). (Gerstel, col. 4, lines 47-54). Gerstel does not teach or disclose different *communication* protocols for communicating Internet messages. Gerstel does not teach or disclose “communicating the Internet message from the source to the node of the first type using a first communication protocol” as recited in claim 1. Similarly,

Gerstel does not disclose “communicating the Internet message from the node of the first type to the node of the second type using a second communication protocol” as recited in claim 1.

Thus, Gerstel does not disclose all of the limitations recited in claim 1. Applicants respectfully submit that claim 1 is not anticipated by Gerstel and is in condition for allowance.

Regarding claim 2, the Examiner stated that Gerstel teaches “communicating an Internet message from the source to the node of the first type using a first protocol” by the disclosure of a node 103 in subnet A, a selected node 102 in sub-network C, and that subnets A, B, C, and D all require different operating protocols. Claim 2 has been clarified to recite “a first communication protocol.” Gerstel does not disclose communicating an Internet message, and does not disclose communication protocols. The invention of Gerstel “involves shipment of agent code across the network” (col. 8, line 37), and does not disclose communicating an Internet message.

As set forth above, the sub-networks of Gerstel require different *operating* protocols and have different *topologies* (e.g., token ring, WAN). (Gerstel, col. 4, lines 47-54). Gerstel does not teach or disclose different *communication* protocols for communicating Internet messages. Gerstel does not teach or disclose “communicating the Internet message from the source to the node of the first type using a first communication protocol” as recited in claim 2. Similarly, Gerstel does not disclose “communicating the Internet message from the node of the first type to a node of a second type using a second communication protocol” as recited in claim 2.

Gerstel does not disclose all of the limitations of claim 2. Applicants respectfully submit that claim 2 is not anticipated by Gerstel and is in condition for allowance.

Claims 9-12, 14-16, and 19 have been canceled. Claims 3, 5-8, 13, and 17 depend, directly or indirectly, from claim 1, and are therefore allowable for at least the same reasons. Claims 4 and 18 depend from claim 2, and are therefore allowable for at least the same reasons.

Regarding claims 36-49, the Examiner stated that the claims are “corresponding system claims of method claims 1-14; therefore, they are rejected under the same rationale.” Claim 49 has been canceled.

Claim 36 recites, among other things, “wherein each node of a first type comprises: a receiver to receive the Internet message from the source using a first communication protocol.” As set forth above, Gerstel does not disclose communicating an Internet message using a communication protocol, and further does not disclose a node having a receiver to receive an Internet message. Claim 36 further recites “a transmitter to communicate the Internet message to a selected node of the second type using a second communication protocol.” Gerstel does not disclose a node having a transmitter to communicate an Internet message, and does not disclose a second communication protocol. Thus, Gerstel does not disclose all of the limitations recited in claim 36. Applicants respectfully submit that claim 36 is not anticipated by Gerstel and is in condition for allowance.

Claim 37 recites, among other things, “wherein each node of a first type comprises: a receiver to receive the Internet message from the source using a first communication protocol.” As set forth above, Gerstel does not disclose a node having a receiver to receive an Internet message and does not disclose any communication protocols. Claim 37 further recites “a transmitter to communicate the Internet message to a node of the second type using

a second communication protocol.” Gerstel does not disclose a node having a transmitter to communicate an Internet message using a second communication protocol. Thus, Gerstel does not disclose all of the limitation of claim 37. Applicants respectfully submit that claim 37 is not anticipated and is in condition for allowance.

Claims 38, 40, 41, and 45 depend on claim 36 and claim 39 depends on claim 37. Thus claims 38-41 and 45 are allowable for at least the same reasons.

Claim 42 recites, among other things, “wherein each node of a first type comprises: a receiver to receive the Internet message from the source using a first communication protocol; [and] a transmitter to communicate the Internet message to a selected node of the second type using a second communication protocol.” As set forth above, Gerstel does not disclose a node having a receiver to receive an Internet message and a transmitter to communicate the Internet message, and does not disclose any communication protocols. Gerstel does not disclose all of the limitations of claim 42. Applicants respectfully submit that claim 42 is not anticipated and is condition for allowance.

Claims 43, 44, and 46 depend from claim 42, and are therefore allowable for at least the same reasons.

Claim 47 recites, among other things, “wherein each node of a first type comprises: an interceptor to intercept the Internet message from the source using a first communication protocol; and a transmitter to communicate the Internet message to a selected node of the second type using a second communication protocol.” Gerstel does not disclose a node having an interceptor to intercept an Internet message and a transmitter to communicate the Internet message to a selected node of a second type, and does not disclose any communication protocols. Gerstel does not disclose all of the limitations of claim 47.

Applicants respectfully submit that claim 47 is not anticipated and is in condition for allowance.

Claim 48 recites, among other things, “wherein each node of a first type comprises: a receiver to receive the Internet message from the redirector using a first communication protocol; and a transmitter to communicate the Internet message to a selected node of the second type using a second communication protocol.” Gerstel does not disclose a node having a receiver to receive an Internet message from a redirector and having a transmitter to communicate the Internet message to a selected node of the second type. Gerstel also does not disclose a redirector or any communication protocols. Gerstel does not disclose all of the limitations of claim 48. Applicants respectfully submit that claim 48 is not anticipated and is condition for allowance.

#### CLAIM REJECTIONS UNDER 35 U.S.C. § 103

In section 20 of the Office Action, the Examiner rejected claims 20-33, 50-61, and 63 under 35 U.S.C. § 103(a) as being unpatentable over Gerstel in view of Gelman et al. (U.S. Pat. No. 6,415,329) (“Gelman”). Applicants respectfully traverse.

Claims 22, 24-26, 29, and 31-33 have been canceled. Claims 60, 61, and 63 have also been canceled.

Regarding claim 20, the Examiner stated that Gerstel teaches the method of claim 1, but does not explicitly teach wherein the first protocol is a standard protocol, the second protocol is a high-performance protocol, and the third protocol is a standard protocol. The Examiner further stated that Gelman discloses these limitations, and that it would have been obvious to combine the teachings of Gerstel and Gelman.

As set forth above, Gerstel does not disclose all of the limitations of claim 1. Claim 20 depends on claim 1 and is thus allowable for at least the same reasons. Further, the second protocol disclosed by Gelman is a Wireless Link Protocol (WLP), which compensates for the physical characteristics of the satellite path (a high delay bandwidth path). (Gelman, col, 7, lines 41-43). Gelman only discloses that WLP is appropriate for the satellite path, not that WLP is a high-performance communication protocol. Also the satellite path is a *high delay* path, and such a path does not teach or suggest a high performance communication protocol.

Further, there is no suggestion or motivation to combine the Gerstel and Gelman references, and the combined references would not teach or disclose all of the limitations of claim 20. Gerstel discloses sending topology updates between sub-networks having different topologies, and does not disclose communicating Internet messages using communication protocols. Gelman discloses using TCP/IP, and using WLP over a satellite link. Gelman is silent regarding differing topologies of sub-networks and topology updates, and does not disclose operating protocols or sub-networks having different operating protocols. Thus, one of ordinary skill in the art would not be motivated to combine Gelman with Gerstel.

None of the cited references, either alone or in combination, discloses all of the limitations of claim 20. Applicants respectfully submit that claim 20 is non-obvious and is in condition for allowance.

Claim 21 depends from claim 2, and claim 23 depends indirectly from claim 1, and are therefore allowable for at least the same reasons. Claims 21 and 23 are also similar to claim 20, and the above remarks regarding claim 20 are hereby applied to claims 21 and 23. Applicants respectfully submit that claims 21 and 23 are non-obvious and are in condition for allowance.



Claims 27, 28 and 30 depend from claims 20, 21 and 23, respectively, and are therefore allowable for at least the same reasons.

Claims 50, 53, and 57 depend, directly or indirectly, from claim 36, and are therefore allowable for at least the same reasons. Claims 51 and 58 depend from claim 37, and are therefore allowable for at least the same reasons. Claims 52, 54, 56, and 59 depend, directly or indirectly, from claim 42 and are therefore allowable for at least the same reasons.

In section 25 of the Office Action, the Examiner rejected claims 34, 35, 64, and 65 under 35 U.S.C. § 103(a) as being unpatentable over Zhao (US 6,081,840) in view of Gerstel.

Claims 34, 35, 64, and 65 have been canceled.

#### CLAIM OBJECTIONS

In section 29 of the Office Action, the Examiner stated that claim 62 was objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 62 has been amended to be in independent form including all of the limitations of the base claim and the intervening claim. Applicants respectfully submit that claim 62 is now in condition for allowance.

#### NEW CLAIMS

Applicants are presenting new claims 67-78. Applicants respectfully submit that none of the cited references, either alone or in combination, teach or disclose all of the limitations of new claims 67-78.

Claims 67-70 are similar to claim 62, and each of claims 67-70 recite, among other things, “a transmitter to communicate the message to a selected node of the second type using a second communication protocol.” None of the cited references, either alone or in combination, teaches or discloses at least this limitation recited by each of claims 67-70. Applicants respectfully submit that claims 67-70 are in condition for allowance.

Claim 71 recites, among other things, “a plurality of specialized nodes, the specialized nodes including software to understand standardized web communication protocols, the plurality of specialized node including at least one first specialized node and at least one second specialized node.” None of the cited references, either alone or in combination, teaches or discloses at least this limitation of claim 71. Applicants respectfully submit that claim 71 is in condition for allowance. Claims 72-74 depend on claim 71, and are therefore also in condition for allowance.

Claim 75 recites, among other things, “deploying a plurality of first specialized nodes, each of the plurality of first specialized nodes including software to receive and transmit messages conforming to a first communication protocol, the first communication protocol being a standardized web communications protocol, and software to receive and transmit messages conforming to a high-performance communication protocol.” None of the cited references, either alone or in combination, teaches or discloses at least this limitation of claim 75. Applicants respectfully submit that claim 75 is in condition for allowance.

Claim 76 recites, among other things, “a plurality of first specialized nodes, each of the plurality of first specialized nodes including software to receive and transmit messages conforming to a first communication protocol, the first protocol being a standardized web communications protocol, and software to receive and transmit messages conforming to a high-performance communication protocol.” None of the cited references, either alone or in

combination, teaches or discloses at least this limitation of claim 76. Applicants respectfully submit that claim 76 is in condition for allowance. Claims 77 and 78 depend from claim 76, and are therefore also in condition for allowance.

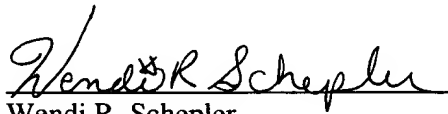
CONCLUSION

Based on the foregoing amendments and remarks, Applicants respectfully submit that all pending claims in the present application are in condition for allowance and respectfully request the issuance of a Notice of Allowance. If a telephone conference would facilitate the prosecution of this application, the Examiner is invited to contact Applicants' attorney at the number listed below.

Respectfully submitted,

Adam Grove et al.

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